MECHANICAL SYSTEMS DATA SHEET: VESSEL

PLANT ITEM No.
24590-PTF-ME-CNP-EVAP-00001

Project	***RPP-WTP***	P&ID	***24590-PTF-M6-CNP-P0008***
Project No	***24590***	Process Data Sheet	***24590-PTF-M5D-CNP-00001***
Project Site	***Hanford***	Vessel Drawing	
Description	***Cesium Evaporator Separator Vessel CNP-EVAP-00001***		

R10377790

ISSUED BY RPP-WTP PDC

Reference Data

Charge Vessels (Tag Numbers)	***None***
Pulsejet Mixers / Agitators (Tag Numbers)	***None***
RFDs/Pumps (Tag Numbers)	***None***

Design Data

Quality Level		***QL-1***			Fabrication Specs	***24590-WTP-3PS-MV00-TP001***	
Seismic Category		***SC-I***			Design Code	***ASME VIII Div 1***	
Service/Contents		***Radioactive Liquid***			Code Stamp	***Yes***	
Design Specific Gravity		***1.37****			NB Registration	***Yes***	
Maximum Operating Volume	gal	*			Weights (lbs)	Empty	Operating / Test
Total Volume	gal	*			Estimated *		
					Actual *		

Inside Diameter	inch	*			Wind Design	***Not Required***	
Length/Height (TL-TL)	inch	*			Snow Design	***Not Required***	
		Vessel Operating	Vessel Design	Coil/Jacket Design	Seismic Design	***24590-WTP-3PS-SS90-T0001 & 24590-WTP-3PS-MV00-TP002***	
Internal Pressure	psig	***-13.4****	***50****	***N/A***	Seismic Base Moment *	ft*lb	
External Pressure	psig	***0****	***15****	***N/A***	Postweld Heat Treat	***Not Required***	
Temperature	°F	***122/140****	***40/250****	***N/A***	Corrosion Allowance	Inch	***0.04***
Min. Design Metal Temp	°F	***40****			Hydrostatic Test Pressure *	psig	

Contents of this document are Dangerous Waste Permit Affecting.

Please note that source, special nuclear and byproduct materials, as defined in the Atomic Energy Act of 1954 (AEA), are regulated at the U.S. Department of Energy (DOE) facilities exclusively by DOE acting pursuant to its AEA authority. DOE asserts, that pursuant to the AEA, it has sole and exclusive responsibility and authority to regulate source, special nuclear, and byproduct materials at DOE-owned nuclear facilities. Information contained herein on radionuclides is provided for process description purposes only.

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9-14-04

EXPIRES: 11/9/2004

This bound document contains a total of 2 sheets

REV	DATE	REASON FOR REVISION	PREPARER	CHECKER	REVIEWER	APPROVER
0	9/14/04	Issued for Permitting Use		K.R. Sadler Jr.		

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Materials of Construction

Component	Material	Minimum Thickness / Size	Containment
Top Head	***SB575 (Hastelloy)UNS N06022****	•	***Auxiliary***
Shell	***SB575 (Hastelloy) UNS N06022****	*	***Primary***
Bottom Head	***SB575 (Hastelloy) UNS N06022****	•	***Primary***
Support	***SA240 304 (Note 3)****	*	***N/A***
Jacket/Coils/Half-Pipe Jacket	***N/A***	***N/A***	***N/A***
Internals	***SB575 (Hastelloy) UNS N06022****	*	***Instrument Piping Primary***
Pipe	***SB622 (Hastelloy) UNS N06022 (Seamless)****	•	***See Note 4***
Forgings/ Bar stock (internal)	***SB564 (Hastelloy) UNS N06022****	*	***As Note 4 for Nozzle Necks***
Gaskets	*	•	***Auxiliary***
Bolting	***SA194 8M/ SA193 B8M***	•	***Auxiliary***

Miscellaneous Data

Orientation	***Vertical***	Support Type	*
Insulation Function	***N/A***	Insulation Material	***N/A***
Insulation Thickness (inch)	***N/A***	Internal Finish	**** (Note 1)***
		External Finish	*

Remarks

* To be determined by Seller.
** To be verified by seller
Note 1: Weld surface finish shall be de-scaled as laid.
Note 2: Design life is 40 years.
Note 3: Maximum carbon content of 0.030% for all welded components
Note 4: Nozzle necks below maximum liquid level are primary, others auxiliary.